

shown by the block 300, which block 300, forming no part of the present invention, is not further described herein, and processing returns to the block 262.

5 The main routine for each of the dedicated first and sound playback processors is the same as the main routine described above in connection with the description of Figure 5, except that instead of reading the switch values each of the dedicated sound playback processors reads its input control lines to determine whether it has been enabled and if so, to determine which of its group of  
10 sounds has been selected. The loop format and sound bite format subroutines called thereby are the same as the loop format and sound bite format subroutines described above in connection with the description of the Figures 6 and 7, with the exception that instead of reading the switch values each of the dedicated sound  
15 playback processors reads its input control lines. The main routine, and the loop format and sound bite format subroutines, are not again described herein for the sake of brevity of explication.

20 Many modifications of the presently disclosed invention will become apparent to those of skill in the art having benefitted by the instant invention without departing from the scope of the appended claims.

WHAT IS CLAIMED IS:

1 1. An improved digital sound relaxation system that enables  
2 individuals to selectably choose, according to their individual  
3 tastes, a combination of at least two (2) individual prerecorded  
4 natural sounds of a plurality of prerecorded natural sounds for  
5 concurrent replay, comprising:

6 (1) a digital memory in which a plurality of prerecorded  
7 sounds are stored in a predetermined manner;

8 (2) at least one sound selector switch for selecting  
9 individual ones of said plurality of prerecorded sounds stored in  
10 said digital memory for replay;

11 (3) a combine switch to select for replay a sound that is a  
12 combination of at least two (2) different individual sounds selected  
13 by activating said at least one sound selector switch; and

14 (4) a processor coupled to said digital memory and responsive  
15 to said switches operable in one of two (2) basic modes; in one  
16 mode, any prerecorded sound stored in said digital memory is  
17 individually replayed by activating said at least one sound  
18 selector switch, and in another mode, any combination of at least  
19 two (2) different individual prerecorded sounds stored in said  
20 digital memory are concurrently replayed by activating said at  
21 least one sound selector switch and said combine switch.

1 2. The improved digital sound relaxation system of claim 1,  
2 wherein at least some of the prerecorded natural sounds are stored  
3 in a "loop" format in said memory and at least one of the  
4 prerecorded natural sounds are stored in sound bite format in said  
5 memory, where said loop format defines (1) a plurality of  
6 addressable memory locations and (2) start and end locations, such  
7 that a different part of the same natural sound is stored at  
8 another address location and in such a way that the parts stored at  
9 the start and end locations are as acoustically-seamless as  
10 possible, and where said sound bite format defines at least two (2)  
11 groups of addressable memory locations, such that another self-  
12 contained and complete-in-itself version of the same natural sound  
13 is stored in each of said at least two (2) groups of addressable  
14 memory locations.

1 3. An improved-flexibility digital sound relaxation system that  
2 allows a user to select composite-sounds for playback tailored to  
3 their individual preferences and personal tastes in a composite-  
4 sounds playback mode as well as to select single-sounds for  
5 individual playback in a single-sounds playback mode, comprising;  
6 a digital sound relaxation device having (1) at least one user  
7 input device including for allowing user selection of prerecorded

8 sounds of a library of individual prerecorded sounds both for  
9 individual replay and for concurrent replay, (2) at least one  
10 digital memory in which are digitally stored a first plurality of  
11 prerecorded individual continuous-type sounds, and in which are  
12 digitally stored a second plurality of prerecorded individual  
13 intermittent-type sounds, which first and second pluralities of  
14 prerecorded sounds provide said library of individual sounds at  
15 least some of which may be selected by means of said at least one  
16 user input device for individual replay in said single-sounds  
17 playback mode and that <sup>may</sup> be individually selected by means of the  
18 at least one user input device for concurrent replay tailored to  
19 the individual preferences and personal tastes of the user in said  
20 composite-sounds playback mode and (3) a digital controller coupled  
21 to said at least one digital memory and to said at least one user  
22 input device, responsive to at least one user input selection in  
23 said single-sounds replay mode, to individually replay any one of  
24 at least said first plurality of sounds of said library of said  
25 first and second pluralities of individual prerecorded sounds that  
26 has been user selected for individual replay, and responsive to at  
27 least one user input selection in said composite-sounds replay  
28 mode, to concurrently replay any individual one of said first  
29 plurality of individual prerecorded continuous-type sounds with any

30 individual one of said second plurality of individual prerecorded  
31 intermittent-type sounds that have been individually user selected  
32 for concurrent replay in accord with the individual preferences and  
33 personal tastes of each user.

1 4. An improved-flexibility digital sound relaxation system having  
2 single-sounds and composite-sounds playback modes that allows a  
3 user to select composite-sounds for playback tailored to their  
4 individual preferences and personal tastes in composite-sounds  
5 playback mode as well as to select single-sounds for playback in  
6 single-sounds playback mode, comprising:

7 a digital memory device;

8 a library of individual prerecorded sounds digitally stored in  
9 said digital memory device having a first plurality of continuous-  
10 type sounds each individually selectable for replay, and having a  
11 second plurality of intermittent-type sounds each individually  
12 selectable for replay, at least one of each of said intermittent-  
13 type sounds of said second plurality of intermittent-type sounds  
14 being constituted by multiple, different, complete-in-itself  
15 versions;

16 an operator input device for allowing user selection of any  
17 individual continuous-type sound for playback in said single-sounds

18 playback mode and for allowing user selection of any individual  
19 continuous-type sound and of any individual intermittent-type sound  
20 of said library of individual prerecorded sounds for concurrent  
21 playback in said composite-sounds playback mode; and

22 a digital controller coupled to said digital memory device and  
23 to said operator input device operative in response to user  
24 selection of an individual continuous-type sound of said library of  
25 individual prerecorded sounds in said single-sounds playback mode  
26 to replay the individual continuous-type sound selected for replay,  
27 and operative in said composite-sounds playback mode in response to  
28 user input selection of any individual continuous-type sound of  
29 said first plurality of sounds of said library of individual sounds  
30 selected for concurrent replay and to user input selection of any  
31 individual intermittent-type sound of said second plurality of  
32 sounds of said library of individual sounds selected for concurrent  
33 replay, to concurrently replay the individual continuous-type sound  
34 selected with the individual intermittent-type sound selected, and  
35 where the individual intermittent-type sound selected is any of  
36 said at least one intermittent-type sound constituted by multiple,  
37 different, complete-in-itself versions, to replay different ones of  
38 the multiple, different, complete-in-itself versions thereof, such  
39 that the different versions are individually selected for replay,

40 and in such a way that each version selected is replayed at a  
41 selected time.

1 5. The improved-flexibility digital sound relaxation system having  
2 single-sounds and composite-sounds playback modes that allows a  
3 user to select composite-sounds for playback tailored to their  
4 individual preferences and personal tastes in composite-sounds  
5 playback mode as well as to select single-sounds for playback in  
6 single-sounds playback mode of claim 3, wherein said different  
7 versions of said at least one intermittent-type sound constituted  
8 by multiple, different, complete-in-itself versions are  
9 individually selected for replay at random.

1 6. The improved-flexibility digital sound relaxation system having  
2 single-sounds and composite-sounds playback modes that allows a  
3 user to select composite-sounds for playback tailored to their  
4 individual preferences and personal tastes in composite-sounds  
5 playback mode as well as to select single-sounds for playback in  
6 single-sounds playback mode of claim 3, wherein said different  
7 versions of said at least one intermittent-type sound constituted  
8 by multiple, different, complete-in-itself versions are  
9 individually selected for replay at random times.

1 7. An improved-flexibility digital sound relaxation system that  
2 allows a user to select composite-sounds for playback tailored to  
3 their individual preferences and personal tastes in a composite-  
4 sounds playback mode as well as to select single-sounds for  
5 individual playback in a single-sounds playback mode, comprising;

6 a digital sound relaxation device having (1) at least one user  
7 input device including at least one sound select switch and a  
8 combine switch for allowing user selection of prerecorded sounds of  
9 a library of individual prerecorded sounds both for individual  
10 replay and for concurrent replay, (2) at least one digital memory  
11 in which are digitally stored a plurality of prerecorded individual  
12 sounds, which plurality of prerecorded sounds provides said library  
13 of individual sounds that may be selected by means of said sound  
14 select switch of said at least one user input device for individual  
15 replay in said single-sounds playback mode and that may be  
16 individually selected by means of said sound select switch and said  
17 combine switch of said at least one user input device for  
18 concurrent replay tailored to the individual preferences and  
19 personal tastes of the user in said composite-sounds playback mode  
20 and (3) a digital controller coupled to said at least one digital  
21 memory and to said at least one user input device, responsive to at  
22 least one user input selection input via said sound select switch



23 of said at least one user input device in said single-sounds replay  
24 mode, to individually replay any one of said plurality of sounds of  
25 said library of individual prerecorded sounds that has been user  
26 selected for individual replay, and responsive to at least one user  
27 input selection input via said sound select switch and said combine  
28 switch of said at least one user input device in said composite-  
29 sounds replay mode, to concurrently replay individual ones of said  
30 plurality of prerecorded sounds with other ones of said plurality  
31 of individual prerecorded sounds that have been individually user  
32 selected for concurrent replay in accord with the individual  
33 preferences and personal tastes of each user.